American Council of the Blind

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May 26, 2011

Mr. David Hu
Ms. Rosaline Crawford
Federal Communications Commission
445 12th Street, SW.
Washington, DC 20554

Re: Reply comments for CVAA advanced communications provisions

Dear Sir and Madam:

Due to severe technical problems, we were unable to meet the stated deadline of May 24, 2011. Attached are the reply comments of the American Council of the Blind. They are in response to comments made concerning the advanced communications provisions of the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA).

Sincerely,

Eric Bridges
Director of Advocacy and Governmental Affairs

Before the

Federal Communications Commission

Washington, D.C. 20554

In the Matter of		
Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010	)	CG Docket No. 10-213
Amendments to the Commission's Rules Implementing Sections 255 and 251 (a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996	)	WT Docket No. 96-198
In the Matter of Accessible Mobile Phone Options For People who are Blind, Deaf-Blind, or Have Low Vision	)	CG Docket No. 10-145

Reply Comments of the American Council of the Blind

These reply comments are provided on behalf of the American Council of the Blind (ACB), a nonprofit organization that represents the interests of blind and visually impaired people throughout the United States. Based in the Washington D.C. area, ACB has tens of thousands of members from across this country who belong to more than 70 state and special interest affiliates. Being the nation's leading blindness organization, ACB represents members from all walks of life who display interests in a variety of activities including business, education, the arts, to name a few. Its special interest groups are comprised of, among others, teachers, government employees, attorneys, students, information technologists, and artists.

ACB and its affiliates conduct a large number of advocacy, social, and cultural activities. Central to these are many activities such as collaboration with the government, K-12 and higher

education, the private sector, and international entities to improve opportunities for all blind and visually impaired people. Recent examples of such collaboration include addressing concerns such as full access to education for students, full access to the work environment for blind employees, access to entertainment and educational content such as visually displayed information at sports facilities and information contained in videos as well as full access to the increasing array of advanced communications options in a multitude of settings.

Constructed to provide feedback specifically tailored from the perspective of blind Americans—who stand to benefit from the proposed provisions in Section 104 of the Twenty-First Century Communications and Video Accessibility Act (CVAA)) through the implementation of the "advanced communications" provisions, the sections below focus on responses to organizational questions, respond to potential financial effects of potential regulations, as well as address specific concerns regarding technical standards and the needs faced by persons who are blind, visually impaired, or deaf-blind.

ACB commends the FCC for conducting a rigorous assessment of the landscape facing the blind community throughout the nation. Incorporating responses from a prior inquiry into the development of this NPRM that will promulgate regulations will allow the Commission to avoid significant pitfalls and help to move the process forward without unnecessary delay. These comments are organized based on the paragraph numbers supplied by the Commission For instance, "P. 5" indicates the paragraph which begins the section on scope. In addition, these comments respond to industry groups, on occasion specifically referring to manufacturers or service providers to highlight comments.

In implementing Section 716, 717, and 718, ACB urges the Commission to consider the primary purpose of CVAA. In a rapidly changing technology landscape, the industry has simply

failed to keep up with the needs of consumers who are blind, visually impaired, or deaf-blind. It is quite clear that service providers and manufacturers believe otherwise. In some cases, this thinking is quite evident in the way manufacturers and service providers have responded to this request for comment. For instance, Comments by the CTIA, T-Mobile, and Verizon seem to imply that the industry has been quite effective in delivering third-party solutions to meet the needs of consumers with disabilities. Feedback from ACB members suggests that this is far from the truth. In order to achieve true accessibility several factors must come together. ACB's comments are intended to bring these factors to the forefront. A combination of strong performance objectives, a tangible partnership among service providers and manufacturers to deliver appropriate solutions, the consistent and timely feedback from blind or visually impaired people, and a consistent and effective reporting and enforcement mechanism will ensure that the intent inherent in the passage of CVAA will be fully met.

Scope

ACB applauds the Commission for recognizing the clear distinction between Section 255 and 716 as intended by Congress. From the legislative history and intent, it is clear that the creation of Section 716, Congress understood that the industry had not reached far in achieving access to many devices and software. We ask the FCC to maintain the stands that it has in this NPRM by including many aspects of device accessibility under the auspices of Section 716. Industry comments favor an indubitable approach that would relegate much accessibility to a looser standard applicable under Section 255. Despite what Industry would have us believe, very little choice exists for blind or visually impaired people that does not require them to make remarkable effort and pay hundreds of after-market dollars. We recognize the importance of Section 255 and the narrow set of technologies it covers. We ask the Commission to maintain in

its final rules that the bulk of communications technologies both available today and in the future will be governed by section 716 rather than section 255.

P. 14: Interconnected VoIP and Advanced Communications Service (ACS)

Through prior regulation and implementation, the scope and meaning of the term "interconnected VoIP service" is well understood within the framework of FCC's understanding. However the newly defined terms—namely: (1) "non-interconnected VoIP service;" (2) "electronic messaging service;" and (3) "interoperable video conferencing service"—are not only given specific definitions in CVAA but must be defined in such a manner as to understand their application as it relates to usability, accessibility, and compatibility requirements of Section 104. And, even though CVAA refers to the previously defined definition of interconnected VoIP service, it must be framed to clarify its context.

It is important to the American Council of the Blind that the FCC clarify the software and equipment that is deemed to be covered under the various definitions (either promulgated through regulations of the CVAA or through prior regulations). In order to achieve full access as intended through CVAA, it is ACB's firm belief that all equipment and software with which a blind, visually impaired, or a deaf-blind person comes in contact when accessing covered advanced communications services under given definitions must be made accessible. With that in mind, ACB urges the Commission to utilize it' authority to delineate interconnected VoIP services and equipment as covered under Section 255 and interconnected VoIP equipment and services that can be used for electronic messaging and video conferencing (as covered under Section 716). It is vital that the Commission make it clear in any final rules it adopts that interconnected VoIP equipment and services that can be used for electronic messaging and video conferencing, two of the other prongs of the definition of advanced communications, must

satisfy the access requirements of section 716. Industry comments argue that since a VoIP device connects to the PSTN, it does not fall under Section 716 and manufacturers or services providers have no obligation to ensure access to the electronic messaging and video conferencing features that customers with disabilities have purchased. As further discussed below, the interplay of sections 255 and 716 must not be allowed to defeat the very reason for the CVAA's enactment.

> We continue to believe that “Cover advance communication services shall include: (1) equipment; (2) web-based and stand-alone software; (3) equipment furnished with software with which persons with disabilities must interact in any manner; (4) equipment with hardware features with which persons with disabilities must interact in any manner; or (5) any other type of software or equipment with which persons with disabilities must interact in order to access interconnected VoIP services, non-interconnected VoIP services, electronic messaging services, or interoperable video conferencing services” despite the fact that such equipment happen to be connected to a PSDN.

It should be well noted that, to the extent that hardware and software are both used to provide services in the context of these definitions, each such element of these services must be accessible to people who are blind, visually impaired, or deaf-blind. In lieu of seeking specific technical usability and accessibility requirements, ACB favors a performance-based approach where specific criteria for accessibility are defined through national (or international) standards. Utilizing existing standards and guidelines will allow manufacturers and service providers to refer to a common set of development documents in order to promote best practices as well as to manage resources. Work is well underway by the Access Board to revise the standards leading to accessibility of equipment and software falling under the scope of Sections 508 and 255. In many instances, it is expected that the revised standards will be able to provide specific

guidelines in order to make products accessible; when specific software and hardware guidelines are unable to provide the necessary information to manufacturers and other covered entities, the functional requirements specified in potential new guidelines implementing Section 255 and 508 should be utilized to make products and services accessible. With performance criteria in place, techniques for different aspects of achieving accessibility can differ depending on emerging technologies. Many industry comments including CTIA have indicated that industry-based approaches should be used to develop standards for creating accessible products and features; ACB does not believe that this is appropriate. It is vital that harmonization occur among various existing standards—thus, the effort by the Access Board to combine ICT standards related to Section 508 and Section 255. To avoid confusion among manufacturers, service providers, and consumers, ACB favors a consolidated approach.

To illustrate an approach, Take a router such as the MiFi that is able to allow a consumer to connect to a VOIP-enabled device or allow a consumer to connect multiple wireless devices to access advanced services. Such a router, as a covered device, must be designed in such a way as to not prevent a blind, visually impaired, or a deaf-blind person to operate it independently. When made accessible, it may implement the techniques defined by the web accessibility provisions of Section 508 so that the web-based interface for setting up the router is fully accessible by using assistive technology software utilized by people who are blind. In addition, the hardware design for such a router could incorporate accessible elements from the hardware design section of the revised Sections 255 and 508 guidelines. In earlier comments, ACB supported the notion that an approach like W3C's Web Content Accessibility Guidelines 2.0 has taken—specifically, these guidelines provide guidelines for achieving certain objectives but also allow for techniques to be created based on specific technologies.

Similarly, wireless or other devices providing text-based messaging services that are covered under the definition of “electronic messaging service”—whether such messaging services are implemented by dedicated text-messaging or by implementing various instant messaging services—should be covered by applying software accessibility standards from Sections 255 and 508. The hardware portion of those devices can be made accessible by applying the respective hardware accessibility standards. It will be necessary for the FCC to ensure that the software and hardware standards being considered for revision by the Access Board cover appropriate advanced communication devices and services. Furthermore, it will also be vital that the Access Board release the updated standards in time to synchronize the regulatory process that must be followed by the FCC to implement the relevant provisions of CVAA.

P. 15-18: Architecture and Components Supporting ACS

The layered approach to describe the architecture of ACS on the market today and its future direction that the Commission has taken appears to capture the levels of interaction required in relation to accessibility. In particular, FCC clearly understands the layers of complexity involved in understanding the inclusion of accessibility features and functions in various devices. It also highlights the very vital point that industry commenters and the FCC appear to have forgotten in developing suggestions and requirements for complaints. ACB will further discuss the complaints procedure later on. Suffice it to say—this layered description of the architecture is the primary reason to treat ACS holistically and not to subject the device to different compliance standards for different functions that a given device provides.

P. 19-24: Definition of Manufacturer

In general, we agree with FCC's definition of a manufacturer as taken from Section 255. The identification of the manufacturer has not been historically difficult. However we also urge the FCC to be flexible in its consideration—especially knowing the interaction required in delivering accessibility to ACS. We do not agree with industry commenters such as T-Mobile and Verizon who wish to remain aloof from the process of providing accessibility. As ACB has discussed in the past, the process of manufacturing and providing advanced communication services and equipment is no longer simple. Nor is it the case that service providers remain outside the process. In fact, service providers such as AT&T, Verizon, and T-Mobile participate in choosing ACS that they will provide to their customers. Take, for instance, T-Mobile: It was one of the first companies in the United States to make available an Android phone. Granted, T-Mobile turned to HTC to manufacture this phone. The association of this phone to T-Mobile remains firm in the mind of the consumer. ACB refers to this partnership as a mere instance of the numerous partnerships that exist among service providers and manufacturers. Many times, what applications are included on phones are directly controlled by service providers. The second version of the Android phone, the T-Mobile G2, removed accessibility features such as a screen reader that could have been included on the phone without additional cost, leaving the consumer to seek out solutions at a considerable difficulty and potential expense.

We believe it is necessary that product upgrades are considered integral to the operation of a given device. Quite frequently, upgrades to devices fix so-called bugs in device functionality which are necessary to install in order for the device to operate properly. Product upgrades often install entirely new versions of operating systems and make entirely new features and functions available. Putting it another way, upgrades are not simply enhancements to existing capabilities but are often essential to continued use. That having been said, nothing in the CVAA makes a

distinction between functionality acquired at time of purchase and functionality made available to a customer at any time after purchase. Indeed, a customer more often than not has an ongoing relationship with a manufacturer which regularly makes product upgrades available. Obviously, if the purpose of a given upgrade is to offer features other than ACS, such features cannot be expected to meet section 716 requirements just as features made available at time of purchase that are not ACS would fall outside the section 716 mandates. However, it is quite common that upgrades constitute fixes and/or improvements to a device's operating system. The test for CVAA purposes is not when a device and/or its software are acquired; the test is whether a device and/or software are used for advanced communications. If so, they must meet the requirements of the CVAA. Similarly, the test for CVAA purposes is not the identity of the one who installs software, upgrades, add-on applications, or anything else; the test is whether a manufacturer is offering devices and/or software used for ACS. Let us assume that a given manufacturer offers for sale a device which must be loaded with an application available for download from a particular web site, and the device's ACS functionality is dependent upon the installation of such application. The fact that the manufacturer compels, or even merely invites, the user to visit a web site and download an application to enjoy the device's ACS capabilities is not dispositive. Putting it another way, the CVAA applies to manufacturers even when "some assembly is required."

In the United States, the primary relationship for a consumer when obtaining an upgrade is with the service provider and not with the manufacturer. For competitive reasons, many service providers block upgrades or certain features from devices so that users will purchase additional devices. While we do not propose to ask the FCC to intervene in the competitive landscape and the practices of service providers, we must point out that blocking upgrades may

impact the delivery of accessibility features. As an illustration, we ask the FCC to examine the myriad of Android devices on the market, their accessibility capabilities, and the number of service providers who have blocked upgrades. However, the counter example to this is Apple's frequent upgrades to the iOS eco system. While contracted with AT&T, Apple has delivered regular updates to device owners without AT&T being a part of the process.

P. 26-27: Resellers and Aggregators, Service Provider Networks

Recent developments in the wireless arena have brought together three distinct manufacturers and service providers to meet consumer needs. Two distinct models have emerged which provide a study in contrast. The first of these models, followed by Apple and Research in Motion (RIM), involve only two parties—namely, the wireless operator (or service provider) and operating system and hardware developer (or manufacturer). While the responsibility for providing accessibility is joint, the role for the manufacturer is more defined. With this model, the responsibility for providing access to the wireless device lies primarily with the manufacturer. The unique blend of software and hardware capabilities must be matched by the manufacturer to ensure that its devices are accessible, whether through a built-in screen reader, magnifier, or a third-party solution at a "nominal" cost. (See discussion of "nominal" below.) Until now, Apple has provided an example of a manufacturer who has considered accessibility to be an essential part of its business process. RIM, on the other hand, has relegated accessibility for blind, visually impaired, or Deaf-blind people to a third-party provider—accessibility which, at $500 or more per wireless device, cannot be considered "nominal" by any common definition of the word.

The second model, followed by Google and Microsoft, relies on these companies serving primarily as operating system developers to power hardware developed by other manufacturers.

This model breaks down the responsibility for ensuring accessibility to multiple parties. Operating system manufacturers remain the largest party responsible for ensuring access to the operating system while hardware manufacturers such as Samsung, HTC, and Motorola are responsible for hardware. As current operations prove, however, the line between software development and hardware development is blurred. Current sets of wireless hardware manufacturers develop software which often replaces the one made available by the operating system developer. In this case, the responsibility for ensuring access to the software is combined with the operating system developer. It requires that (1) the operating system developer provide underlying features that would enable software developers to make their products accessible and (2) the hardware manufacturer developing software take advantage of the underlying accessibility features to ensure that the add-on software complies with given access requirements.

Regardless of which model prevails, the operating role of the service provider remains important. In the wireless and other arenas, the service provider (or network operator) often chooses devices, the price at which these devices will be made available to the consumer, and the features and capabilities that these devices will have. As such, the service provider serves as the arbiter of choice for consumers. Therefore, the service provider not only must ensure that it carries a choice of devices that provide varying level of capabilities, but must ensure that sufficient, accessible choices are available for blind or visually impaired consumers from among these varying capabilities and price points. This necessitates a close coordination with manufacturers, internal operations, and the community of blind, visually impaired, and deaf-blind consumers. It further necessitates a close consideration of the requirements for hardware and software manufacturers. Culminating this list of responsibilities is the fact that the service

provider must consider that it be able to provide adequate pre-sale and post-sale support to blind, visually impaired, or deaf-blind consumers as it does for everyone else.

Industry commenters have sought a blanket consideration regarding “third-party” software and its accessibility. As seen above, the interconnected world of telecommunication requires the Commission to look at this issue in a much more refined way. While the CVAA does make it clear that manufacturers and service providers are not to be held accountable for the accessibility of third-party solutions, Congress did not intend manufacturers and service providers from being relieved of their obligations to provide accessibility. If, for example, a service provider commissions a piece of third-party software ad-on, it cannot be said that the software was manufactured by someone other than the service provider. Similarly, advertising a third-party solution as an integral part of a device that delivers ACS makes the service provider responsible for its accessibility. Industry would have us believe that they do not enter into agreements with contractors or third-parties. We are surprised that industry, rather than suggesting that it would obligate its third-party contractors to comply with accessibility requirements through legal provisions, seek blanket exceptions. Innovation requires manufacturers and service providers to look at solutions from a different perspective. We urge the FCC, service providers, and manufacturers to seek solutions that would make accessible possible through easiest means rather than seeking blocks.

For all these reasons, we cannot consider resellers, service providers, and aggregators as isolated entities. They are quite integral. Even though their role in the provision of ACS may differ, they cannot be exempted from the business obligation of providing accessibility.

P. 30: 255 Versus 716

Congress has made it clear in section 716(f) that equipment subject to section 255 prior to the CVAA's becoming law continues to be subject to section 255. ACB has consistently argued that neither section 255 nor section 716 speak in terms of discrete features and functions but in terms of equipment and services as a whole. Section 716 makes it plain that equipment and services used for ACS are governed by section 716's access requirements. Section 255 has never been applied to equipment and services used for ACS as defined in the CVAA with the exception of interconnected VoIP which the Commission pulled within the reach of section 255 several years ago. Since the CVAA includes interconnected VoIP within the definition of ACS, it would avail nothing for industry to challenge the Commission's interconnected VoIP report and order because if, hypothetically, the report and order establishing section 255 coverage of interconnected VoIP were to be vacated and regarded as though it never existed, the CVAA would continue to cover interconnected VoIP but apply a more rigorous compliance standard than the readily achievable standard of section 255. Congress has essentially ratified the FCC's action by the language of section 716(f) itself by including interconnected VoIP into the purview of CVAA.

The much more important question that the Commission must answer with strength and clarity is whether the accessibility or inaccessibility of a given device or service that offers both telecommunications within the meaning of Title II of the Communications Act and ACS should be covered by section 255, section 716, or some combination thereof. While extensive industry comment, particularly that of CTIA, seems to be urging the Commission to apply section 255 to devices offering telecommunications regardless of whether such devices also offer ACS, we believe that the Commission should reject such an approach categorically. First, if we say that section 255 alone applies to mixed function devices, does that mean that the inaccessibility of,

for instance, electronic messaging offered by such devices cannot be reached at all by the Communications Act? The industry comment in this regard does not specifically argue this result. As a practical matter, we are aware of only one device, the Apple iPod Touch, that offers ACS-like features and which also does not offer telecommunications. Surely the Commission is not prepared to read the extensive provisions of the CVAA to apply to a precious few of devices available on the market today. Now if an alternate reading of industry comments in this area is entertained, namely a reading that portrays industry as saying that a mixed function device is to be covered by section 255 alone and that the inaccessibility of such device's ACS features is to be evaluated through section 255's readily achievable standard, such a position is equally difficult to understand. Congress has not now said that the Communications Act Title II nondiscrimination obligations now apply to information services that have been traditionally outside the reach of Title II. Congress has said nothing of the kind. Congress has said that devices used for ACS are covered by section 716, and only devices that are not used for ACS but which were covered by section 255 prior to the CVAA remain covered by section 255.

There is another approach that AT&T seems to put forth most persuasively—namely an approach that seeks to apply different sections of the Communications Act to various features within a single device. While this splitting of the difference has pragmatic appeal at first blush, it is an approach that in some ways squares least with both the letter and the spirit of the Communications Act. Neither section 255 nor section 716 speak in terms of individual features and functions but in terms of equipment and services as unities. What is perhaps equally as important, consumers interact with equipment and services as unities and not as a variety of unrelated tools that just happen to be in the tool box together. Moreover, as the Commission itself recognizes, there is an inescapable interrelationship between and among the architecture

and components that comprise devices. To recognize this approach would be to not only make it immensely difficult for industry to comply with Section 716 and Section 255, but it would almost guarantee that consumers would never have access to ACS. In addition, the Commission itself would find it extremely difficult to regulate such an approach as it would be plagued with complaints that it could not resolve. While pragmatic on the surface, this approach cannot be allowed to divide the provision of accessible ACS based on functions and features.

In regulations, the Commission should not enshrine some sort of bifurcated scheme that applies two different compliance standards to a single device when both its telecommunications and ACS features are alleged to be inaccessible. Rather, the Commission must do what the CVAA says it must do and apply the section 716 access mandates to all equipment and service used for ACS irrespective of telecommunications. Section 255 applies, as it has always applied, to telecommunications and not to ACS. Indeed, there would be no need for Congress to refer to the peculiar position of interconnected VoIP as Congress does in section 716(f) if we are to understand the law in some other way. Congress drafted section 716(f) to include the reference to interconnected VoIP precisely to communicate the bright line division between sections 255 and 716. In effect, Congress says in section 716(f) that Title II covered telephony, including interconnected VoIP, remains subject to section 255. However, the incorporation of non-interconnected VoIP, electronic messaging, or video conferencing capacities moves the equipment or service out from under section 255 and makes it subject to section 716.

P. 32: Incidental VoIP service

As we have continued to argue, VoIP services are VoIP services, no matter how such services are implemented. We greatly favor the approach that the Commission has outlined. Despite the arguments provided by TIA and Microsoft, VoIP services, even if the manufacturer

considers them to be incidental, should be covered under 716. Microsoft, for instance, has suggested that the Commission provide categorical waivers for Section 716 requirements for "those services in which advanced communication services are incidental to the primary purpose of the product or service." Incidental or not, advance communication service features should be covered, no matter what the device, in accordance with the "achievability" requirements of CVAA. To do otherwise would limit the use of products or a category of products solely because an industry claims the features to be "incidental." If advance communication services were not deemed to be important for people without disabilities, they would not have been included in given products. It is illogical to believe that a feature that is useful to someone without a disability should, at the same time, be considered unnecessary to someone with a disability. So long as they are included, their inclusion must be sufficient for considering the product covered.

P. 33-34: Electronic Messaging Inclusive of Person-to-Person and Automated Communication

While it is true that the definition of electronic messaging speaks in terms of communication between individuals, we believe that it is an idle question for the Commission to ask about the origin of text messages a consumer with disabilities receives. For example, customers often receive text messages and/or email from their wireless provider reminding them that their bill is due and providing call and data plan balances, etc. These are automated messages pushed to consumers without human action as such. However, the Commission's rules need not try to manufacture some sort of legal distinction between the receipt of text messages of this kind and text messages received as a result of human composition and transmission. The only conceivable benefit derived from emphasizing the point that messages are to be between individuals would be the exemption of certain messaging functions or even certain messages

themselves from accessibility requirements. However, such conceivable exemption is pointless. If a device's text messaging and email functions are accessible such that the user with a disability can write and send messages to another person and receive and read messages from another person, the origin of an automated text message, such as a message from one's wireless provider, is irrelevant. If the in-coming message is a text message, it will be read as a text message regardless of who sent it.

CTIA or Verizon's request to apply a literal interpretation to the phrase "between individuals" can be interpreted in many different ways if so needed. In the sense that all messages are ultimately created by individuals and sent to individuals regardless of whether they are sent in an automated manner, we are left with the same premise—namely that it is the accessibility of the system to create messages and the system to review and read message is what is meant. In this discussion, we must consider the accessibility to the user interface of the messaging system in question. The protocols and underlying API are not something we should consider. Thus, we urge the FCC to clarify this point and not restrict the definition of messaging.

P. 41: Video Conferencing

We want to go on record in support of the IT and Telecom RERCs that stand in opposition to TIA and which correctly recognize that webinar systems are subject to section 716 because they are not broadcast services but in fact facilitate communication between and among individuals in the form of chat, polling, and similar forms of communication. Just because they could be used for broadcasting, they do not. A single-time use does not indicate an exception.

P. 43: Incidental Video Functionality

As has been stated above when considering "incidental" VoIP services, ACB is not in favor of looking at a service as merely "incidental" just because a manufacturer wishes to do so.

As such, we agree with the Commission's rejection of TIA's analysis and concur that the statutory definition of ACS makes no distinction between devices and services that have video conferencing capacity as their primary purpose and those which do not. The plain meaning of the CVAA is that equipment and service that can in any way be used for ACS fall within the new law's requirements. Contrary to TIA's thinking, there is no exemption to which equipment and services offering so-called incidental ACS are statutorily entitled. The law does grant waiver authority to the Commission with respect to equipment and services which the Commission may deem so far removed from the notion of ACS that application of the CVAA's requirements to them would be untenable. However, such action is discretionary.

P. 44: Interoperable

ACB is pleased to see the Commission adopt and understanding of the term “operable” as intended by Congress in its myriad reports. Despite what industry commenters suggest, the modifier does not make a substantive difference in the meaning of Section 716.

P. 48-50: Customized equipment

We ask that the Commission’s final rules in this area are written in a way that minimizes, to the maximum extent possible, the immense potential for a large loophole by those who will want to exploit the CVAA’s sensible exclusion of coverage for customized equipment. In developing its final rules, several foundational realities must be acknowledged. It is obvious that when a school purchases iPads for students and staff, for instance, the equipment cannot in any way be considered customized. Indeed, manufacturers build equipment on the largest scale they can. Thus the argument that there exists many instances of customized equipment which may be excluded from CVAA coverage is incorrect. It is also important to understand that institutions purchase equipment from the same pool of devices, and purchase services from the same

offerings as non-institutional customers. To exclude from the CVAA's reach technologies that can simply be asserted to have been deployed in some narrowly defined setting poses the very real prospect of manufacturers and service providers creating dozens of artificially different distribution streams creating confusion and unnecessary complexity in the market. Similarly, a manufacturer who sells commercially available telecommunications devices by making slight modifications must not be able to utilize the "customized equipment" exception in order to potentially circumvent Section 716 requirements.

However, even in those instances in which some sort of specialization has arguably occurred, if the device incorporates ACS-dependent operating systems and/or applications which, in their native form, afford or allow accessibility, then such equipment should not be excluded from CVAA coverage. This is the very area of controversy and inaccessibility with regard to the "fragmentation" taking place with Android devices. An example is found on Motorola devices operating the Android operating system and on which users with vision loss wish to install one of the free accessibility apps or services. As also discussed, T-Mobile G2 phone follows the same model. Were it not for the decision of Motorola and HTC to remove portions of the operating system, the device would be accessible. We believe the CVAA authorizes the Commission to implement the new law through regulations which require those devices using an operating system that can otherwise afford or allow accessibility to include the entire operating system as built.

We turn now to the specific regulatory framework we believe the Commission should use to properly implement the customization exclusion. To understand the extent to which customization should take a given product or service out from under the CVAA's access requirements, let us pose a hypothetical wherein Company X will offer a non-interconnected

VoIP telephone and messaging system to corporate customers desiring extraordinary encryption and other security measures. Company X's product is essentially standard to all customers; the customization occurs when company X adds unique hardware and/or software to the system per the needs of each corporate customer.

In this scenario, the ACS technology is not customized; Company X is dealing in CVAA-covered equipment. The addition or integration of customized hardware or software to meet the security needs of this or that customer cannot in itself justify exclusion from accessibility expectations. Rather, the plain meaning of the CVAA, supported by the legislative history which the Commission notes in the NPRM, provides that excluded customized equipment must be both unique and not offered to the public generally. Systems that have not been designed in their entirety to specifications demanded by a single client are, by definition, not unique. They include hardware and/or software which were in existence prior to the client's commissioning of the unique system requirements. In other words, bundling of systems to create a “package” does not constitute a customization. It is merely a bundle that delivers a specific set of services on a preexisting set of components that are available commercially or via open source models.

Likewise, if a given system is initially designed to meet client A's unique needs, and the system manufacturer subsequently sells the same system to client B, perhaps even with some modifications similar to the security features hypothesized above, the selling of the system to a subsequent client means that the system is no longer excluded from CVAA coverage because client B has purchased equipment that is not unique in the marketplace.

It is essential for the Commission to account for these dynamics in the final rule because, if technology developed initially at the unique specifications of a client can be offered to subsequent clients but not be reachable by the CVAA to ensure access, the implications are

grave. In effect, a failure to prevent this from happening opens the door to the inevitable proliferation of inaccessible technologies which were initially designed for some discrete business interest but which the market subsequently demands. Therefore, the Commission must promulgate rules in this area that provide as follows.

1. The Commission must be unequivocal that the question of whether the equipment or service qualifies for exclusion on the basis of customization is the Commission's determination to make within the context of the complaint process. Putting it another way, when a complaint is lodged alleging inaccessibility, a manufacturer must not simply be allowed to assert that the equipment in question falls within the customization exclusion; the Commission must make a final determination as to whether that is in fact the case. Such determination must employ two tests.
    a. First, has the equipment or service in question, either in its entirety or the ACS-related technology of such equipment or service, been deployed by the manufacturer or service provider in the context of more than one individual or corporate business entity? If the Commission finds that the answer is yes, the equipment or service in question is not merely meeting the unique needs of a particular business interest but is capable of meeting the needs of a variety of interests.
    b. Second, if there is only one entity to which the equipment or service has been deployed, is there documentation between such entity and the equipment manufacturer or service provider demonstrating, to the Commission's satisfaction, the customization of ACS or ACS-related hardware and/or software which departs from technology otherwise available in the market? If the Commission finds that

the customization that has occurred does not substantially concern ACS or ACS-related technology but merely other features and functions of interest to the entity (e.g., security features), the equipment or service does not qualify for the exclusion.

2. It is necessary that the commission consider the limitations placed on accessibility of "customized" equipment to ensure that minor customizations such as visual design changes or changes to make products attractable to specific market segments do not affect accessibility in general. Service providers and manufacturers must still be able to meet the "achievable" standard. Specific market segments such as public schools or enterprises often employ or work with people with disabilities. The covered equipment and software must be made accessible to these individuals. The limitations on "customized" equipment must only apply to the "customized" portion of the equipment and service in question so that persons who are blind, visually impaired, or deaf-blind can continue to use the non-customized parts of the equipment. In addition, ACB believes that the definition of "public" must encompass public institutions such as schools and government entities.

P. 52-60: Waivers, Primary functions

In light of the discussions that have taken place in the previous section regarding the interplay between Sections 716 and 255, ACB is strongly opposed to granting categorical waivers to devices or classes of devices without the manufacturer or service provider doing due diligence on whether or not accessibility is "achievable." Business models and devices on the market suggest that hybridization of feature sets on many devices make it impossible for the FCC to grant categorical waivers. Granting such waivers without understanding their future

evolutionary path will be detrimental to consumers who are blind, visually impaired, or deaf-blind.

We agree with the analysis performed by the American Foundation for the Blind regarding waivers and urge the FCC to adopt the process that has been outlined by AFB. In particular, we agree that the process should be similar to that of the complaints process and that a waiver should be sought on a product by product basis. In addition to the process outlined by AFB, we further urge that, while making its decision, the FCC seek informal input from consumer groups who may have a direct impact by the granting of the waiver.

We must disagree with industry commenters who argue that the granted waiver must be of the length no less than 18 months. The increasingly rapid product development cycles makes it difficult for us to imagine to have a lengthy waiver period. Should the Commission, for any reason, determine that a waiver is in order, ACB's recommendation is that such a waiver for a covered device only be granted for a term whose length shall not exceed more than 12 months. Manufacturers or service providers seeking this waiver must return to the FCC at the end of such a term to receive a redetermination regarding the status of the waiver.

Similar to categorical waivers for classes of devices, ACB is opposed to granting waivers for all "small entities" without such entities having done due diligence on whether or not product accessibility is "achievable." As discussed in prior sections, the "achievability" standard is multifaceted. A small entity, for instance, may only be required to make minor alterations to their product in order to achieve accessibility. Once again, a case-by-case approach to granting waivers would better serve the needs of consumers.

Should, for any reason, the Commission determine that waivers are in order for "small entities," it is ACB's recommendation is such waivers for covered small entities in question only

be granted for a term whose length shall not exceed more than 12 months. Manufacturers or service providers seeking these waivers must return to the FCC at the end of such a term to receive a redetermination regarding the status of the waiver.

P. 67-73: Achievable

ACB is pleased to see CVAA adopt a standard which, while providing some flexibility to manufacturers and network and service providers, enables the Commission to measure aspects of reaching accessibility. Unlike the "readily achievable" standard implemented in Section 255, the current "achievable" standard provides a specific set of criteria that, when evaluated, provides the Commission a framework for gauging compliance. More important, however, these criteria allow manufacturers to set up processes that help them to consider product accessibility within a flexible manner. From ACB's perspective, these criteria will allow manufacturers, operators, and service providers to begin the consideration of accessibility at an organizational level rather than at the departmental level. Strategic application of accessibility at an organizational level allows businesses to associate the principles of universal design into their product development cycles, providing innovative thinking from all stakeholders.

Overall, the definition of "achievable" establishes that the covered entity expend "reasonable effort or expense." In determining whether the requirements of the provisions of Section 104 are "achievable," the Commission must consider the following factors: (1) the nature and cost of the steps needed to meet the requirements of this Section with respect to the specific equipment or service in question; (2) the technical and economic impact on the operation of the manufacturer or provider and on the operation of the specific equipment or service in question, including on the development and deployment of new communications technologies; (3) the type of operations of the manufacturer or provider; and (4) the extent to which the service

provider or manufacturer in question offers accessible services or equipment containing varying degrees of functionality and features, and offered at differing price points. When considering "reasonable effort or cost," it may be helpful to understand that, even when the organization expends reasonable effort and cost, it must be negatively impacted in a significant manner. Thus, ACB's analysis utilizes a claim of "extraordinary impact" when the organization fails to show any reasonable effort or cost other than conducting a technical or market analysis. These analyses, in and of themselves, cannot be considered to be reasonable.

As stated above, the "achievable" standard allows the service provider or a manufacturer to establish enterprise-wide processes that ensure that the entire organization is able to engage in delivering quality usability and accessibility to its product or service. It is important, therefore, that the Commission begin its evaluation by understanding the overall commitment of the organization to achieving accessibility. In doing so, the following factors play a significant role:

1. The engagement of upper-level executives of the organization with the process of providing accessibility;
2. The consideration of the budgeting process for accessibility as compared to the entire organization's budget;
3. The inclusion of accessibility during the planning phase of each product developed or service delivered by the organization;
4. The extent to which the service provider or the manufacturer devotes personnel during each product/service development to achieving accessibility;
5. The extent to which the organization has a plan for testing the product or the service by including persons with disabilities. This includes persons who are blind, visually impaired, or deaf-blind;

6. The extent to which the service provider or the manufacturer plans to devote resources to supporting the specific needs of persons with disabilities. This includes persons who are blind, visually impaired, or deaf-blind; and
7. The extent to which the service provider or the manufacturer has a record of delivering accessible products or services as compared to its total products or services.

Many industry commenters have suggested that the Commission should not utilize the overall size of the manufacturer in question to determine whether or not a ACS accessibility is achievable. These same commenters suggest, however, that the Commission should take into account factor 4 in their favor when making the same analysis. Industry cannot decide that it wishes to use a double standard when wanting to be exempted from one requirement but when seeking favor for another. We urge the FCC to use the size of the manufacturer as well as its overall budget when conducting "achievability" analysis. In fact, we argue that factor three calls for this very analysis in that Congress included the "type of operation" as one of the factors.

When determining that an organization is in compliance with the provisions of Section 716, these factors will provide significant indicators regarding the level of commitment that accessible product development requires. Positive indicators for each of these factors suggest that the organization has done its due diligence for achieving accessibility. However, if the Commission determines that a failure of an overall commitment to accessibility exists, it can consider specific factors related to the development of a particular product in question. This requires the FCC to scrutinize the organization more closely when it claims that accessibility for a particular product or service was "not achievable." Other than considering these broad factors, it is essential that the Commission has a plan to actively engage with the community of blind,

visually impaired, and deaf-blind people to understand the history of working with the organization in question.

When a product manufacturer or a service provider claims to not meet the “achievable” standard, it may become necessary for the FCC to apply the four-step process as provided in the definition in order to evaluate the claim: the first of these asks the Commission to consider the “nature and cost of the steps needed to meet the requirements of this Section with respect to the specific equipment or service in question.” According to this requirement—in order to prove that accessibility of service or a product is “not achievable,” an organization must show:

1. That the totality of steps it needs to take are extraordinary and
2. That the cost for making this one product accessible, when compared to the organizations entire budget, is extraordinary.

The second specific consideration that the FCC is required to make when evaluating a ”not achievable” claim is the “technical and economic impact on the operation of the manufacturer or provider and on the operation of the specific equipment or service in question, including on the development and deployment of new communications technologies.” This claim requires that the service provider or a manufacturer provide the proof of an overall negative technical impact as well as a negative impact on an organization’s overall economic outcome. To show this, however, the organization in question must:

1. Demonstrate, through technical analysis, that adding accessibility requirements will result in the product or service in question being extraordinarily impacted such that the product performance is severely compromised;
2. Demonstrate, through market analysis, that introducing accessibility features in a product or service will result in extraordinary loss in profit as compared to the overall profit.

When developing and deploying a new network service, accessible design and deployment requires an organization to consider accessibility from the beginning of the product development cycle. A company cannot conduct its technical or market analysis after the product has been developed and make a subsequent claim of extraordinary negative impact. It is, therefore, essential that service providers and manufacturers consider implementing accessibility analysis throughout the organization.

The definition of "achievable" requires that the Commission further consider the "type of operations of the manufacturer or provider." ACB agrees that this is an important distinction to make—especially considering the fact that recent developments in the wireless arena have brought together three distinct manufacturers and service providers to meet consumer needs. Two distinct models have emerged which provide a study in contrast. The first of these models, followed by Apple and Research in Motion (RIM), involve only two parties—namely, the wireless operator (or service provider) and operating system and hardware developer (or manufacturer). While the responsibility for providing accessibility is joined, the role for the manufacturer is more defined. With this model, the responsibility for providing access to the wireless device lies primarily with the manufacturer. The unique blend of software and hardware capabilities must be matched by the manufacturer to ensure that its devices are accessible, whether through a built-in screen reader, magnifier, or a third-party solution at a "nominal" cost. (See discussion of "nominal" below.) Until now, Apple has provided an example of a manufacturer who has considered accessibility to be an essential part of its business process. RIM, on the other hand, has relegated accessibility for blind, visually impaired, or Deaf-blind people to a third-party provider—accessibility which, at $500 or more per wireless device, cannot be considered "nominal" by any common definition of the word.

The second model, followed by Google and Microsoft, relies on these companies serving primarily as operating system developers to power hardware developed by other manufacturers. This model breaks down the responsibility for ensuring accessibility to multiple parties. Operating system manufacturers remain the largest party responsible for ensuring access to the operating system while hardware manufacturers such as Samsung, HTC, and Motorola are responsible for hardware. As current operations prove, however, the line between software development and hardware development is blurred. Current sets of wireless hardware manufacturers develop software which often replaces the one made available by the operating system developer. In this case, the responsibility for ensuring access to the software is combined with the operating system developer. It requires that (1) the operating system developer provide underlying features that would enable software developers to make their products accessible and (2) the hardware manufacturer developing software take advantage of the underlying accessibility features to ensure that the add-on software complies with given access requirements.

Regardless of which model prevails, the operating role of the service provider remains important. In the wireless and other arenas, the service provider (or network operator) often chooses devices, the price at which these devices will be made available to the consumer, and the features and capabilities that these devices will have. As such, the service provider serves as the arbiter of choice for consumers. Therefore, the service provider not only must ensure that it carries a choice of devices that provide varying level of capabilities, but must ensure that sufficient, accessible choices are available for blind or visually impaired consumers from among these varying capabilities and price points. This necessitates a close coordination with manufacturers, internal operations, and the community of blind, visually impaired, and deaf-

blind consumers. It further necessitates a close consideration of the requirements for hardware and software manufacturers. Culminating this list of responsibilities is the fact that the service provider must consider that it be able to provide adequate pre-sale and post-sale support to blind, visually impaired, or deaf-blind consumers as it does for everyone else.

P. 74-76: The Fourth Factor, Range of Products, 716(j)

The final consideration under the definition of "achievability" for the FCC is the "extent to which the service provider or manufacturer in question offers accessible services or equipment containing varying degrees of functionality and features, and offered at differing price points." This particular consideration goes to the heart of some of the discussions in the previous paragraph relating to the responsibility of the service provider to choose devices with varying capabilities and at differing price points. It is a well-known fact that consumers, in general, are not homogeneous; their purchasing preferences and usage patterns suggest that their capabilities differ. Some prefer to obtain devices that are feature-rich and those that enable them to communicate in various ways while others prefer to restrict their device usage to limited functions such as text-messaging. Blind, visually impaired, or deaf-blind consumers should be considered no different than general consumers. Their limited income or limited need often means that they will choose to obtain a device with limited functionality. At this time, extremely limited number of choices exists for these consumers, forcing them to utilize devices with capabilities that they do not need and forcing them to pay for devices for which they have no use. This occurs largely due to the fact that most devices such as smartphones have the capacity for third-party add-ons to make them accessible. It is essential that manufacturers and service providers make available a range of devices that fit various price ranges along with

corresponding accessible features; this may be accomplished by dividing devices into classes and making certain that each class has at least one option that is fully accessible.

In general, we agree with the Commission's proposed approach to applying the fourth factor in the "not achievable" analysis. We do urge the Commission to consistently refer to the application of the four-prong test in terms of its function to assess when access is indeed not achievable. The test does not assess whether access was achievable. The factors are used in a way that is fundamentally different from the factors used in the "readily achievable" context of section 255. For section 716 purposes, the four factors are the factors to which the target of a complaint must appeal to justify a failure to provide accessibility. They are not at all applied similarly to the measures of section 255's "if readily achievable" analysis which effectively cap a company's access obligations at a relatively low threshold. Indeed, the entire point of the fourth factor in the section 716 context is to reinforce the point that, even if access is not achievable with respect to the device or service that is the subject of the complaint in question, a range of options is nevertheless available from the manufacturer or provider involved.

We continue to be astonished by the importance that any number of industry groups give section 716(j) in their comments. The fact is that section 716(j), being a rule of construction, is ultimately a rule of construction for a court to follow in the event that a company appeals to the courts for review of the Commission's action, either in terms of the Commission's rulemaking authority or in terms of the Commission's handling of a complaint. The Commission is within its authority under the CVAA because section 716(j) merely bars the application of access requirements to each and every one of the company's products. Putting it another way, for a company to successfully argue that the Commission is out of step with section 716(j), the company must prove that compliance is being required with respect to all of the company's

products and that all of those products are being required to address all disabling conditions. This is in part why we also voice our support for the Commission's proposal to require some accessibility features on all devices. We believe that the ease with which audible output of menu functions and on-screen text can be achieved makes audible output a good candidate for such across-the-board treatment. Indeed, the relative ease with which audio output can be achieved in even the many low-powered devices should give industry some heart.

As we have urged previously before the Commission, there is an application of the fourth factor that is both reasonable on its face and about which even the most strident industry voices should not cry out in opposition. We do agree with the Commission's sense that the fourth factor is a good faith examination of whether a given company is generally a good player with regard to people with disabilities. However, we again urge the Commission to make it clear in its final rule that, at a minimum, the company in question is required to provide at least one alternative to the complainant which does two things: the alternative must not result in any additional cost to the complainant; and the alternative provides the same or greater functionality than was expected from the device or service that is the subject of the complaint. Therefore, let us assume that a consumer files a complaint about a device that only offers one single solitary feature, electronic messaging. Let us further suppose that this device can only send and receive text messages; it cannot be used for web browsing, phone calls, email, or anything else. The complainant alleges that this one-purpose device is not accessible, and the company's response is that it is indeed inaccessible. In addition to demonstrating that the first three factors justify the device's inaccessibility, the company must also show that it can offer the complainant at least one other product that offers accessible text messaging, even if that alternative product is the company's top-of-the-line product, and the alternative has been offered to the complainant at no more than

the cost of the inaccessible device. Obviously, in calculating such costs, the company must ensure that the cost of the device itself and the costs of any related data or other usage fees are taken into account. While we of course would like to see a company offer a full range of products and would hope the Commission would make such an expectation clear in its final rules, we continue to feel that a company's commitment to being able to offer at least one accessible alternative to a complainant at no additional cost is an essential minimum expectation that the final rules must establish.

Some industry group commenters have implied that it should not be their responsibility to offer third-party solutions such as screen readers to users with disabilities. While we will comment further in the section that discusses "nominal cost," a brief discussion does appear to be appropriate. In particular, when discussing the fourth factor that relates to the manufacturer's willingness to offer services and ACS that provide accessible functionality, it we recommend to the Commission that, when conducting an analysis and applying the fourth factor, it should look at the cost at which the manufacturer or service provider provides ACS that is similar or accessible.

P. 77, 80: Industry flexibility

Models that create accessibility by utilizing resources that are available on devices as well as external, potential third-party solutions are true signs of innovation. ACB firmly believes that, in order to provide access to devices and features in multiple ways and to suit the needs of multiple markets that people who are blind or visually impaired represent, it is necessary to not restrict the means by which manufacturers and service providers achieve full access to devices. ACB is unwilling to restrict innovation and creativity by placing artificial barriers to device

manufacturing or service provision. As a result, we agree with FCC's analysis that will allow industry the options that it needs to achieve accessibility to ACS.

That being the core thinking that would benefit ACB's members and the community of blind, visually impaired, or deaf-blind individuals in the long-term, it is also necessary to note that the priority should be placed on built-in accessibility solutions at all times when technical factors do not prohibit those solutions. If a third-party solution is chosen by the service provider or manufacturer, these significant points must be kept in mind:

- The third-party solution cannot be an after-market sale for which the user must perform additional steps to obtain.
- The third-party solution must not cost more than a "nominal" amount to the user. (See below for a discussion about the meaning of "nominal.")
- The third-party solution must provide full access to advanced communications services covered in CVAA.
- The third-party solution must be fully operable by a person with a disability without having to turn to people without disabilities in order to perform setup or maintenance.
- The accessibility solution, regardless of whether it is built-in or third-party, must be fully documented and supported.

Industry comments suggest that it cannot be responsible for documenting and supporting the third-party solution it provides to make ACS accessible. We simply disagree. If we are to give industry the flexibility to choose the manner of delivering accessibility—either built-in or third-party, it cannot then turn around and shirk its responsibility to the consumer by not providing support or upgrades. Industry's responsibilities do not stop at merely pointing to a third-party solution. As discussed above, FCC can ensure that industry puts business processes in

place that would deliver such support and documentation as required. If a third-party solution can be sought to provide accessibility to the ACS, then the same third-party or a different third party can be contracted to provide additional services.

Taking the current state of the wireless industry as an instance of possibilities for providing accessibility, it is clear to ACB that not all manufacturers and service providers are engaging at the level needed in order to provide the most effective solutions. Over the last year-and-a-half, Apple's iPhone stands as an outlier which is the only product that fulfills all the requirements listed above. By introducing a screen reader, a magnifier, and other universal accessibility features for the iPhone at no additional cost, Apple Corporation has shown considerable innovation. Google's Android-based wireless devices, while providing a screen reader with some capabilities, do not provide full access to blind or visually impaired users who need a screen reader. The screen reader cannot be independently installed or maintained without assistance; key features of the operating system are not fully accessible by using the screen reader. The documentation remains poor at best. Wireless devices provided by RIM require blind users to purchase and install a third-party solution at a considerable out-of-pocket cost. At this time, the screen reader neither provides full access to the operating system nor does it provide essential support or documentation. Windows mobile 6.5 and Symbian-based devices follow a similar model in that they require a third-party solution at a substantial out-of-pocket cost to the consumer. In the wireless market, accessibility to what are termed as "feature phones" is far worse for consumers. Other than one phone manufactured by Samsung and offered by a single network operator, the availability of low-cost solutions with full access is nonexistent for people who are blind or visually impaired. The landscape of accessible wireless devices for deaf-blind consumers is even more dire. iPhone and a few other third-party solutions

(with high cost of ownership) provide braille output. No feature phones, however, are currently available to meet this population's need for access at an affordable price.

While it is indeed recognizable that myriad solutions must be sought in order to achieve true accessibility, it cannot be said that these solutions must come at a great additional out-of-pocket cost and with a significant lack of independence for the consumer. When accessibility is incorporated as a part of innovation as Apple has done in making touchscreen based input possible for blind and visually impaired people, it is most certainly possible to incorporate different types of accessibility by utilizing built-in solutions. With a singular focus on a touch-based input, Apple has eschewed physical keyboard input in all its products. The company has sought multiple innovative strategies to make input flexible for blind and visually impaired people. ACB agrees that it cannot be expected to make a fundamental design change to include a physical keyboard on the device. However, combined with touch-based input, Apple has allowed the community to utilize external devices with either physical braille or QWERTY keyboards. This not only provides flexibility to touchscreen access but enables additional methods of input.

Google's approach to developing the screen reader for its Android operating system, by contrast, focuses on a physical keyboard; the screen reader requires it. No fundamental access to touch is available on Android-based devices for blind or visually impaired people. This choice renders all phones with touch-gesture-only screens entirely inaccessible when using the screen reader. More important, however, is the fact that many elements of the operating systems (including the web browser) are inaccessible even when using a device with physical input. The fundamental design of the operating system makes it possible for people without disabilities to access the operating system with or without a physical keyboard being included as a part of the

actual device. Therefore, it should be fully expected that all elements of the operating system be accessible with or without using a physical keyboard to people who are blind or visually impaired.

P. 78: "Nominal"

As ACB has asserted in the past, it is not in favor of adopting a percentage based system for determining the "nominal cost" for accessibility to advanced communication services. In addition to the definition proposed by the Commission, we ask that FCC clarify the definition further. To ACB, the definition of the term "nominal"—as the common understanding of the term implies and as is used in the context of daily usage—means nothing more than "mere token" or "in the name only." As such, the interpretation of the term—when applied to CVAA and its provisions—should mean no more than this common understanding suggests. The cost for accessibility, when provided through third-party software or hardware solutions, should, therefore, be "so small or trivial as to be a mere token." [1] Any other broad interpretation of the term would be against the spirit of CVAA. It is imaginable that collection of a nominal fee in order to provide accessibility would be a symbolic gesture. Nonetheless, the collection of such a nominal fee will result in more actual costs for the service provider or the manufacturer in the form of business costs for processing the trivial amount. ACB does not imagine instances when the manufacturer needs to charge for accessibility, no matter how this accessibility is delivered. In various industry comments to this request, the FCC has been asked to interpret "nominal" in the broadest possible manner. ACB firmly objects to broadening the cost burden for consumers. For too long the burden for accessibility has been placed on consumers with disabilities—a kind of burden that no other segment of the market is asked to take on.

[1] Nominal (n.d.). Merriam-Webster's Dictionary of Law. Retrieved November 20, 2010, from Dictionary.com website: http://dictionary.reference.com/browse/nominal

P. 87-90: Compatibility, Interoperability, Role and Value of Access Board Guidelines.

The purpose of the Access Board guidelines is to assist in the ranking of E&IT options with respect to their accessibility. Section 508 speaks to the process by which this ranking is conducted. The requirements under consideration for purposes of this rule making are more properly thought of as the establishment of technical threshold requirements. In order to comply with the law, equipment and services must pass across the accessibility threshold. Given this dramatically different purpose, we agree with the American Foundation for the Blind in that the proposed Access Board guidelines may be useful to consider but should not be relied on as anything more than advisory material.

P. 92-94: Duty not to Impede Network Features and/or Functions

For many ACB members, innovation means that a product that could not have been imagined to be accessible has now been made accessible by a manufacturer. As has been discussed in this set of comments and, no doubt, by others, there is no finer example of a manufacturer who has shown that a category of products can be made to be accessible by using innovative methodology. Apple, without using any previously existing standards, established a threshold for accessibility to touch screen based devices without relying on a particular set of guidelines. While we know that standards provide uniformity, we simply cannot wait for many ears until standards are developed and promulgated. We must absolutely disagree with CTIA. Standards are not the beginning. Industry does not always begin to consider product design by seeking standards. Innovation requires just that—innovation. Whether the innovation is intended for the general public or whether the innovation is meant for people with disabilities, we can advocate an approach that would delay the implementation of CVAA any further.

We are confident that existing standards and expertise will ensure that manufacturers have sufficient functional approaches to base its accessibility on. Further experience and products will improve this process.

P. 107: Relationship of Performance Objectives to the Work of the Emergency Access Committee

The rules being proposed by the Commission in this NPRM can be thought of as the foundation on which the success of the work of the EAAC will rest. The shift from current technology to NG911 and it's reliance on ACS for emergency communication imposes an additional expectation that accessibility to ACS will be both comprehensive and robust. However, the Commission will need to be diligent in ensuring that this rulemaking proceeding informs the work of the EAAC and that the EAAC's progress is both consistent with the final rules and informative as they are prepared. We urge the FCC to put processes in place that will ensure that EAAC is well informed of the work of this proceeding.

P. 134-136: Informal Complaints

Because consumer complaints constitute a major driver in fostering accessibility, the Commission should take further steps to facilitate engagement of consumers with disabilities in ensuring that the accessibility provisions of the CVAA are carried out. In particular, the Commission must take special care to ensure that enforcement provisions are constructed to facilitate consumer action. Although the Commission's proposals in paragraph 136 appear reasonable, ACB's experience in working with consumers who are interested in filing complaints indicates that these requirements will thwart consumer action rather than assist consumers in engaging industry in accessibility efforts.

As the Commission points out in paragraph 135, several different entities may be responsible for components within a product or service used for advanced communications. In our experience, consumers frequently are unaware of the manufacturer of the products they use for communications. This is particularly true in the wireless sector where the consumer's relationship is typically with the service provider. As a result, many consumers are not aware of or familiar with the manufacturer of the device they have acquired from the service provider. Thus, consumers may not be able to provide specifics such as name, address and contact information for the device manufacturer. If the service provider is responsible for providing the device, the consumer complaint regarding accessibility of the device should be accepted even if only the service provider is listed. Elsewhere in this NPRM, FCC has clearly indicated its understanding of the layers of accessible ACS development; it is unreasonable to expect a consumer to be informed of this as well.

Although it is reasonable and necessary for consumers to provide specific information regarding inaccessibility of a particular device or service, the Commission's proposed rule includes language that will likely "chill" consumer action. The proposed rule asks consumers to include in a complaint "a complete statement of fact explaining" the violation of the Act or "all documentation that supports the complainant's contention." These are overly broad requirements to place on consumers who may consider themselves unable to fully explain the technical reasons for inaccessibility or who may believe that their complaint must be accompanied by technical or legal documentation of inaccessibility. We, therefore, urge the Commission to modify the proposed informal complaint procedures as follows.

1. Consumers should be required merely to provide the name of the manufacturer or service provider and, if possible, city and state of the entity (or the country where the

company is headquartered, in the case of an entity not incorporated in the US). Consumers may not know the name of the provider or manufacturer or may not be sure of the address.

2. The final rule should clarify that complainants are only required to describe the alleged inaccessibility issues related to a product or service in functional terms, e.g., "I can hear my phone's email menu choices, but my phone won't read my email aloud to me no matter what I do." Complainants may be encouraged to provide additional details or documentation as the complaint proceeds.
3. The rule should clarify that where the Commission finds an informal complaint to be lacking in certain details such as the correct name, address or actionable access claim, the Commission will first work with complainants to complete details in order to attempt to create a full complaint, rather than dismissing an incomplete informal complaint at the outset.

While we recognize that some aspects of the process we are recommending may create additional work for Commission staff, the experience gained from complaints filed under Section 255 indicates that consumers with disabilities have not filed excessive complaints and that consumers may need assistance in creating the proper record for Commission action. Ultimately, more complete complaints will aid the Commission in balancing the access expectations of consumers with the need for a clear set of access requirements by industry. We also believe that a clear set of requirements will aid the Commission staff in working with the manufacturer to resolve the complaint.

ACB also believes that we have a responsibility to our members to point out to the Commission that the NPRM makes repeated reference to the Commission's duty to help industry

understand the law's and expectations, while there is insufficient comparable reference to the Commission's duty to assist consumers in both understanding what the law can do for them and how to make use of it most effectively. We believe that the final rule should establish a complaint navigation ombudsman function within the Commission to which consumers can turn for advice on proper form and effective content of both formal and informal complaints. In establishing such a function within the Commission, there should be no problem answering possible industry objections that such a function puts them at a disadvantage and/or would create conflicts of interest within the Commission. The fact is that the Commission adroitly maneuvers through potential conflicts regularly through the application of a host of safeguards. Moreover, whether in the context of the Justice Department's Americans with Disabilities Act enforcement responsibilities or the role of the Client Assistance Program within the Rehabilitation Act or similar structures serving people with disabilities, advice and even advocacy provided on a consumer's behalf by an agency with oversight and/or enforcement responsibilities does not guarantee a favorable result for the consumer by any means. What such advice and advocacy does is level, at least to some extent, the profound disparities in resources, specialized knowledge, and negotiating power which clearly exist between a consumer with disability and the industries and systems which owe such consumers certain legal obligations.

Industry comments have suggested that the FCC establish another set of layer of informal complaints that would provide manufacturers to see the complaints filed prior to FCC working to resolve them. ACB is not in favor of creating more bureaucratic rules. CTIA suggests several additional provisions to the complaints procedure. Specifically, CTIA comments suggest that the information being requested in response to complaints is excessive. The suggestion is without merit. In fact, the information that the FCC requests would help resolve complaints faster. The

FCC cannot lessen the information requested. In addition, CTIA suggests that requiring the manufacturer to produce documentation on the decision to either make or not make product access is an undue burden. As suggested in ACB's original comments in the fall, a manufacturer whose entire operation is dedicated to ensuring designing accessible products will not have difficulty in making the documentation available. Given that CVAA is creating a requirement for manufacturers and service providers to make their products accessible, it cannot be an undue burden to keep documentation on that process.

With Gov 2.0 efforts transforming the way information is conveyed to the public and the federal government making a concerted effort to release significant amount of data regarding government operations, effects of CVAA should be openly tracked by the public. This can occur if the FCC makes datasets available regarding various aspects of this law. The datasets would provide detailed aggregate information on such things as: (1) complaints; (2) resolutions; (3) waivers sought; or (4) waivers granted. In order for such a dataset to have sufficient information to be effective, the Commission will need to gather data systematically. Relying on complaints alone will neither be adequate nor particularly effective. Efforts should be made to gather as much data regarding the work that manufacturers and service providers are doing in making products accessible. The criteria that ACB has laid out in other sections of these comments will provide starting points for questions that the FCC should consider while collecting data. The questions of covered equipment and software, technical and financial feasibility, organizational readiness, as well as partnerships with groups of people with disabilities will be answered by a long-term analysis of the datasets. If CVAA is to be successful in what it intends, it will have to foster multi-level partnerships among service providers, manufacturers, disability groups

(including users with disabilities), and the Commission. Only properly collected and compiled data can show in the long-term whether or not this mission has been successful.

P. 143-144: Future Mobile Phone Web Browser Requirements

Stable, comprehensive and effective access techniques have been available on mobile devices for more than six years. Presently no fewer than 4 distinct mobile operating systems permit accessible mobile web browsing. It is important for the Commission to be aware, however, that only Apple's approach builds in access to web browsing per se and does not require the user to obtain, in several instances quite expensive, third-party solutions. We are aware, in addition, of efforts by other browser manufacturers to incorporate standard-based accessibility in browsers not bundled with various existing devices. We do not understand Verizon's suggestion to create a forum or yet another advisory group which would be responsible to create additional standards. Code Factory is right in that manufacturers must now focus on creating screen readers that interact with the browsers.

Respectfully submitted,

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